"For classrooms to be cultures of thinking for students, schools must be cultures of thinking for adults”

Ron Ritchhart, author of Making Thinking Visible and Creating Cultures of Thinking
Senior Research Associate, Project Zero, Harvard Graduate School of Education
www.ronritchhart.com

"Children grow into the intellectual life around them."

Lev Vygotsky, Russian psychologist

"The more motivation is internal, the greater the results.
...(we) will not do our best work (with each other) or with our students, or be our best ethical selves unless we establish working conditions that support autonomy, warm relationships, and competence."

David Streight, author of Breaking into the Heart of Character: Self-Determined Moral Action and Academic Motivation
8 Cultural Forces that define our classrooms

1. **Opportunities**
   - Providing purposeful activities that require students to engage in thinking and the development of understanding as part of their ongoing experience of the classroom.

2. **Time**
   - Allocating time for thinking by providing time for exploring topics more in depth as well as time to formulate thoughtful responses.

3. **Modeling**
   - Modeling of who we are as thinkers and learners so that the process of our thinking is discussed, shared, and made visible.

4. **Language**
   - Using language of thinking that provides students with the vocabulary for describing and reflecting on thinking.

5. **Environment**
   - Making thinking visible by displaying the process of thinking and development of ideas. Arranging the space to facilitate thoughtful interactions.

6. **Interactions**
   - Showing a respect for and valuing of one another’s contributions of ideas and thinking in a spirit of ongoing collaborative inquiry.

7. **Routines**
   - Scaffolding students’ thinking in the moment as well as providing tools and patterns of thinking that can be used independently.

8. **Expectations**
   - Setting an agenda of understanding and conveying clear expectations. Focusing on the value for thinking and learning as outcomes as opposed to mere completion of “work.”

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DEFINING THINKING ROUTINES

• **Tools** used over and over again in the classroom, that support specific thinking moves such as,
  
  - Making connections
  - Describing what’s there
  - Building explanations
  - Considering different viewpoints and perspectives
  - Capturing the heart and forming conclusions
  - Reasoning with evidence

• **Structures**, through which students collectively as well as individually initiate, explore, discuss, document, and manage their thinking. These structures are:
  
  - Explicit: They have names to identify them
  - Instrumental: They are goal directed and purposeful
  - A few steps: Easy to learn, and easy to remember
  - Individual as well as group practices
  - Useful across a variety of contexts
  - Help to reveal students’ thinking and make more visible

• **Patterns of behavior** adopted to help one use the mind to form thoughts, reason, or reflect. We see these patterns emerging as the routines:
  
  - Are used over and over.
  - Become engrained in us both teachers and students.
  - Flexibility emerges.

From Ritchhart et al, 2006
Making Thinking Visible: Thinking Routines (Ron Ritchhart)

Chalk Talk/Flat Chat

A silent group conversation involving thinking, writing and walking. Each member of the group writes down his/her thoughts on a large piece of paper in response to an essential question. Each then expands on others’ ideas, draws lines to make connections, writes additional comments, stars/underlines those points that he/she thinks are most important, relevant or urgent, etc. Group then reflects on what they observe.

I used to think...Now I think

Reflect on what you thought before you started an activity and now what you think after completing it. (Or reflect on the past, recent experience, and current way of thinking.)

CSI

Think of one color, one symbol, and one image to convey/sum up your thinking.

3-2-1 Bridge

- Think of 3 words, 2 questions, 1 metaphor/simile to convey/sum up your initial responses to the topic.
- Engage in an Activity (i.e. a reading passage)
- Now think of 3 words, 2 questions, 1 metaphor/simile to convey/sum up your new responses.
- Now explain how your new responses connect to your initial responses. (This is the “bridge.”) Have they changed? How? Why?

Compass Points Routine:

Use the compass point activity to convey/sum up your current thoughts – write your thoughts down as if they are at the points of the compass.

1. E = Excited
   - What excites you about this idea or proposition?
   - What’s the upside?

2. W = Worrisome (Wonder About)
   - What do you find worrisome about this idea or proposition (or, what do you wonder about?).
   - What’s the downside?

3. N = Need to Know
   - What else to you need to know or find out about this idea or proposition?
   - What additional information would help you to evaluate things?

4. S = Stance or Suggestion for Moving Forward
   - What is your current stance or opinion on the idea or proposition?
   - How might you move forward in your evaluation of this idea or proposition?
Making Thinking Visible: 10 Apps for Parents

1. *Name and Notice Thinking.* Use the language of thinking to name and notice the thinking your child is using and thus make it more visible. This is especially important when praising and giving feedback: That’s an interesting theory. I like how you have used what you already know to make connections. That’s a perspective I hadn’t thought about.

2. *Develop a Growth Mindset.* A belief that intelligence and ability grow and develop over time—as opposed to something that is fixed and set—encourages greater risk taking, collaboration, enjoyment of challenge, long-term development, and continuous achievement in all types of learning endeavors (Dweck, 2006). Develop a growth mindset in your child by focusing your praise on process, learning, and effort (You really worked hard on this and have learned a lot. You did a great job of developing a plan and following it through. You’ve really developed as a musician.), as opposed to ability (You’re so clever. Look how smart you are; you did that so fast. You’re good at math. You’ve got a lot of talent.)

3. *Challenge but Don’t Rescue.* We learn a lot from making mistakes, pushing ourselves out of our comfort zone, and taking risks to try new things. Regularly encountering challenges, mistakes, and failure builds a growth mindset and develops intellectual resilience. When your child encounters difficulties, don’t jump in to solve the problem and rescue him/her. Instead, ask questions that will help him/her to think through the problem, identify, and choose a course of action for moving forward.

4. *What Questions Did You Ask Today?* Our questions drive us as learners. When Isidor I. Rabi won the Nobel Prize in physics, he was asked, “Why did you become a scientist, rather than a doctor or lawyer or businessman, like the other immigrant kids in your neighborhood?” He replied, “My mother made me a scientist without ever intending it. Every other Jewish mother in Brooklyn would ask her child after school: ‘So? Did you learn anything today?’ But not my mother. She always asked me a different question. ‘Izzy,’ she would say, ‘did you ask a good question today?’ That difference—asking good questions—made me become a scientist!”

5. *Focus on Learning Over the Work.* It’s easy for parents to focus on the work their child has to do and to monitor the completion of that work. However, the completion of work is never the goal of an assignment. Learning is the goal. Take a moment to ask your
child what the purpose of each assignment is, what do they think the teacher wants them to learn and get better at as a result. Then monitor the learning, not the work.

6. **Encourage Connections.** Students encounter new information constantly. To learn and make sense of this information they must connect it to previous knowledge and integrate it with their experience. Ask questions of connection and encourage the creation of metaphors, similes, comparisons and contrasts when talking about the topics your child is studying or exploring independently.

7. **Support Your Child in Arguing Effectively and Persuasively.** A recent study in the journal *Child Development* (J. Allen, 2012) showed that teenagers who argued constructively with their parents by building a case and providing evidence for their position were more able to resist peer pressure to use drugs than were students from more authoritarian households. Researchers found such arguments were training grounds for teens that enabled them to learn to speak up, voice an opinion, and use evidence.

8. **Provide Time to Pursue Passions.** In the movie *Race to Nowhere* (2010), producer/director Vicki Abeles documents how the pressure to succeed on tests is too often robbing children of rich learning experiences, causing stress-related problems, disengaging students, disrupting home life, and leading to wide-scale cheating. One argument the film makes is that teens need the time and space to pursue their passions and interests. Parents must make sure these passions, which may turn into life callings, are not squeezed out of their child’s life. Pay attention to your child’s learning and passions outside of school and make time for them.

9. **Make Your Own Thinking Visible.** The Russian psychologist Lev Vygotsky said, “Children grow into the intellectual life around them.” You are a model for your child of what it means to be a thinker and a learner. Model your own interests, passions, curiosity, reflection, learning, and thinking for your child. Make your own thinking visible to them as a model.

10. **What Makes You Say That?** This simple question is the “killer app” for parents and teachers. By simply asking, “What makes you say that?”, in a curious and non-judgmental tone after someone has given a response, we are able to get a window into the thinking behind that person’s initial response. Teachers in Sweden referred to this as the magic question, because of how much it was able to reveal about students’ thinking. The reasoning behind the response often tells us much more than the response itself.